

## IMPROVED PLL MANUFACTURING TEST APPARATUS

ABSTRACT

A method and an apparatus for testing a phase-locked loop (PLL) are provided. A fixed-level reference clock signal and  
5 a test feedback clock signal are applied to a phase-frequency detector (PFD) of the PLL to measure a minimum output frequency of a voltage-controlled oscillator (VCO) of the PLL. A test reference clock signal and a fixed-level feedback clock  
10 signal are applied to the PFD to measure a maximum output frequency of the VCO. The lock and capture range of the PLL is determined based on the maximum and minimum frequencies of the VCO.